Notice of Allowability	Application No.	Applicant(s)	
	09/740,011	SERIZAWA ET AL.	
	Examiner	Art Unit	
	Quang N. Nguyen	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the Amendment filed on 01/04/2006*.

2. ☒ The allowed claim(s) is/are *1-5,7-9,16 and 17*.

3. ☒ The drawings filed on *20 December 2000* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Examiner's Amendment

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment maybe filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this Examiner's Amendment was given in a telephone interview with the Applicant's Representative, Mr. John R. Mattingly (Registration No. 30,293) on January 31st, 2006.

3. Please change **Claim 1** to:

A computer system including a first computer node and a second computer node connected to said first computer node, comprising:

a first storage area for storing data records;

a first processor provided with said first computer node for storing the data records to said first storage area asynchronously with said second computer node with a free time interval;

a transmitter provided with said first computer node for sending the data records stored in said first storage area;

a second storage area for storing the data records copied from said first storage area;

a receiver provided with said second computer node and connected to said transmitter via a network for requesting said transmitter to send a record group of the data records stored in said first storage area via said network and designated by a request command sent by said receiver, receiving the record group of the data records from said transmitter via said network and storing the record group of the data records to said second storage area; and

a second processor for designating the record group of the data records, to be read from said first storage area using address information of said first storage area in a free time interval asynchronously with storing executed by said first processor and for letting said receiver send the request command to said transmitter,

wherein said transmitter reads the record group of the data records designated by the request command sent from said receiver and sends the record group of the data records to said receiver in response to the request command via said network, and

wherein said first processor stores each record group of the data records into said first storage area with an identifier number indicating a sequence of storing of the each record group of the data records, said transmitter sends the record group of the data records to said receiver in reverse order of the sequence of storing, and said second processor refers to the record group of the data records in said first storage area copied to said second storage area based on the reverse order in order to determine whether the relevant record group of the data records are correct or not depending on said identifier number.

4. Please change **Claim 7** to:

A computer system as claimed in claim [[6]] 1, wherein said first processor writes the identifier number of the relevant record group of the data records after having written the data records and said second processor determines that the relevant record group of the data records are correct when the identifier number of the relevant record group of the data records read to said second storage area has continuity.

5. Please change **Claim 16** to:

A computer system comprising:

a first computer node including a first processor, a first memory coupled to said first processor, and a transmitter coupled to said first processor and said first memory;

a second computer node including a second processor, a second memory coupled to said second processor, and a receiver coupled to said second processor and said second memory;

a network being coupled to said transmitter and said receiver,

wherein said first processor stores a plurality of data records into said first memory based on a first timing;

wherein said second processor indicates said receiver to send a read request, which includes information indicating a part of the plurality of data records stored in said first memory, to said transmitter via said network based on a second timing which is independent of the first timing of storing the plurality of data records into said first

memory, and said second processor makes the information indicating a part of the plurality of the data records by using address information of said first memory,

wherein said receiver sends the read request to said transmitter via said network in response to the indication of said second processor and said transmitter reads the part of the plurality of data records from said first memory and sends the part of the plurality of data records to said receiver via said network in response to the read request, ~~and~~

wherein said receiver stores the part of the plurality of data records received from said transmitter into said second memory,

wherein said first processor stores the plurality of data records with a sequence number, wherein said second processor makes the information indicating the part of the plurality of data records stored in said first memory based on the sequence number, wherein said transmitter sends the part of the plurality of data records in reverse order of the sequence number, and wherein said receiver stores the part of the plurality of data records into said second memory in reverse order of the sequence number.

5. Please cancel claims 6 and 18.

6. Claims 1-5, 7-9 and 16-17 are allowed.

7. The following is an examiner's statement of reasons for allowance:

In interpreting the claims, in light of the specification and the applicant's arguments filed on 01/04/2006, the Examiner finds the claimed invention to be patentably distinct from the prior art of record.

The prior art of record teaches the claimed invention substantially, but it fails to teach or suggest individually or in combination that a computer system and a data transfer method thereof using remote direct memory access comprising: a first storage area for storing data records; a first processor provided with said first computer node for storing the data records to said first storage area asynchronously with said second computer node with a free time interval; a transmitter provided with said first computer node for sending the data records stored in said first storage area; a second storage area for storing the data records copied from said first storage area; a receiver provided with said second computer node and connected to said transmitter via a network for requesting said transmitter to send a record group of the data records stored in said first storage area via said network and designated by a request command sent by said receiver, receiving the record group of the data records from said transmitter via said network and storing the record group of the data records to said second storage area; and a second processor for designating the record group of the data records, to be read from said first storage area using address information of said first storage area in a free time interval asynchronously with storing executed by said first processor and for letting said receiver send the request command to said transmitter, wherein said transmitter reads the record group of the data records designated by the request command sent

from said receiver and sends the record group of the data records to said receiver in response to the request command via said network, and wherein said first processor stores each record group of the data records into said first storage area with an identifier number indicating a sequence of storing of the each record group of the data records, said transmitter sends the record group of the data records to said receiver in reverse order of the sequence of storing, and said second processor refers to the record group of the data records in said first storage area copied to said second storage area based on the reverse order in order to determine whether the relevant record group of the data records are correct or not depending on said identifier number as set forth in independent claims 1 and 16 to allow the load placed on the first processor of the first computer node for the data transfer between the first and the second computer nodes is minimized, and therefore the processor of the first computer node does not realize a decrease in performance by the data transfer to the second computer node *(see Remarks of the Amendment filed on 01/04/2006, pages 7-10)*. Claims 1-5, 7-9 and 16-17 are allowed because of the combination of other limitations and the limitation listed above.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Examiner's Amendment."

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (571) 272-3886.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER